equipment failure for the principal reason?

A I'm sorry, what date?

Q October 12th, 2007, it says 754 Saddle River Road?

A Okay.

Q The DEC reports listed 500 and the Rockland County Sewer District letter said 1,000 gallons, correct?

MR. ADELMAN: Objection to the form.

A Correct.

Q And again the affected water source was the Saddle River, right?

MR. ADELMAN: Objection to form.

A Yes.

Q The next one on November, I think that's 28th, 2007, we have another spill, Twin Lakes pump station, right?

MR. ADELMAN: Objection to form.

A Yes.

Q And it's listed as a dry event?

MR. ADELMAN: Objection to form.

A Yes.

Q Equipment failure listed as the principal reason?

MR. ADELMAN: Objection to form.

A Yes.

Q The Rockland County Sewer district letter to the DEC reports that 3,000 gallons was the estimated spill, right?

MR. ADELMAN: Objection to form.

A Yes.

Q And that it does list there a stream as one of the resources affected?

MR. ADELMAN: Objection to form.

A Yes.

Q And you are familiar with the Twin Lakes pump station, right?

A Yes.

Q The Twin Lakes pump station has a tributary or a stream near it that feeds into the Saddle River, if you know?

A Yes.

Q So, do you believe that that's perhaps the stream they are referencing there?

A I don't know.

Q Do you know any other streams that are at or near the Twin Lakes pump station?

A I haven't looked.

Q And there too, based on the information you

list in your comments, that the information is correct?

A Yes.

Q Next one, December 23rd, 2007, again 754 Saddle River Road, which is the Saddle River pump station, states equipment failure?

MR. ADELMAN: Objection to form.

A Yes.

Q And it says there both the DEC report and the Rockland County Sewer District subsequent letter, 800 gallons?

MR. ADELMAN: Objection to form.

A Yes.

Q And again the affected waterbody being the Saddle River, right?

MR. ADELMAN: Objection to form.

A Yes.

Q There the rainfall data .16, which would again be obviously below the 3 inches within 24 hours, right?

MR. ADELMAN: Objection to form.

A As listed, yes.

MR. ADELMAN: Michael, maybe the way to speed it up, I'm objecting because the document speaks for itself.

MR. BURKE: Let's go off the record.

- BRUCE A. BELL -

(Discussion held off record. Whereupon, following which, these further proceedings transpired.)

BY MR. BURKE:

Q Doctor Bell, the April 26, 2009 entry Saddle River pump station, it lists the spill at 78,000 gallons.

MR. ADELMAN: Objection to form.

A Yes.

Q And there it's listed as a dry weather event, right?

MR. ADELMAN: Objection to form.

A It does.

Q There was no rain the day of, the day before, the day after based on this chart?

MR. ADELMAN: Objection to form.

A There is no information about the rain.

Q Well, you didn't include any information in this report from the United Water rain tables to say that, you know, our report shows there was rain in the area?

A No, I told you everything but the last column is simply reproducing Mr. Lindsay's table so that we can add a column to it, because I couldn't think of any other way to make it readable without flipping back four or five different pieces of paper at once.

Q We appreciate that. But in doing that, if the

rain data was different on the United Water reports that you utilized, you would have said in your comments, "information incorrect". The rain data reported from United Water shows that there was actually rainfall that day, correct?

A No, I wouldn't have.

Q You wouldn't have done that?

A No, because my purpose in doing this table was to look at the information presented by Mr. Lindsay and to say, you know, what's wrong with it, what is incorrect based on the actual documents. Elsewhere in this report I say that I don't believe that the Midland Park data is appropriate for two reasons - one is it's location, the other is the missing data gaps. There are data sets available that are complete and are closer. And that is, in my opinion, it's just an error. You don't use an incomplete data set and you don't use one that's further away when there is readily available data closer.

But I didn't try and go back in and say, well, on this date, you know, any date, that the data from Midland Park says 2.08 and the data from the Spring Valley well field United Water is 3.1. We are going to fight about whether or not that's a rainy day.

Q All right. Getting back to that list that's

billed as dry weather event from April 26, 2009. There it lists from the Rockland County Sewer District letter to the DEC 78,000 gallons, right?

MR. ADELMAN: Objection to form.

A Correct.

Q And it says the resource affected, Saddle River, but it also says surface water, right?

MR. ADELMAN: Objection to form.

A Yes.

Q The surface water being the surface water in the river, if you know?

MR. ADELMAN: Objection to form.

A I have got to go back and look at the two reports he references. It's his words. I didn't memorize the spill letter, so --

Q Okay. But if it was something in comparing the documents like you did throughout, if it wasn't there, you would have put, "incorrect, surface water not listed", right?

A Well, I believe one of the documents must have said surface water. In what context, I don't know.

Q All right. Now, assuming that there is no rain, have you been out to the Saddle River, near the Saddle River pump station?

and you have the introduction of raw sewage to the river, wouldn't you agree that that would negatively impact the river?

A If you put raw sewage in the river at a low flow rate in, what we are talking about, April, if the flow was low, depending on how much of that raw sewage got in there you may or may not have a local affect on bacteria. I would kind of doubt you would have any effect on dissolved oxygen. You would put some nutrients in the river, but the river is not short of nutrients, I mean, not over-nutrified with nutrients. Wouldn't kick the temperature up very much that time of year. Whether or not what the bacteria counts would be would depend on a number of things. And you could run the dissolved oxygen, but if somebody asked me whether it was worth running it, I would probably tell you no - even if you wanted to pay me for it.

Q Fair enough. You would also have floatables, would you not if --

A Again, depends on -- go ahead.

MR. ADELMAN: Objection to form.

A You would have floatables depending on flow velocities of the spill.

Q Floatables, again we are talking about what we discussed earlier, it's more a generic term dealing with

rags, toilet paper, stuff that comes out of the system that's been flushed down the toilet, right?

A I've never heard rags actually being called a floatable, but the other material.

Q The other material, the sanitary napkins, the condoms, those would be floatables?

A Typically.

Q According to this report they said that the spill reached the Saddle River surface water?

A Yes.

MR. ADELMAN: Objection to form. Please wait until the question is over.

Q So, if the spill, based on this data, if the spill reached there, would you agree that it was very likely that floatables within the sewage that was flowing from the manhole also reached there?

A Not without a whole lot more detail.

Q When you went out to the Saddle River pump station, do you recall what time of year it was?

A I recall it was cold. I can't tell you more than that.

Q And you went from the pump station down to the manhole that's closer to the Saddle River, is that right?

A Yes.

- BRUCE A. BELL -

Q And then from the manhole that's closer to the Saddle River, there is a downward grade slopes towards the river, is that fair to say?

A Yes.

Q And there is also a gravel road that goes from the manhole down into the river, is that correct?

A I am trying to remember. I honestly don't remember offhand.

Q Do you know if there is a United Water well and pump station on the other side of the river there?

A No.

MR. ADELMAN: No, you don't recall?

MR. BURKE: No, he doesn't know.

A No, I don't know whether there is.

MR. BURKE: I am going to have this marked. We are up to Exhibit 4.

(Six page document marked Plaintiff's Exhibit 4 for identification.)

MR. ADELMAN: I want to note for the record that this appears to be an eight page document, of which the last two pages are not included.

MR. BURKE: That's fine. I can include it if you want. It's another picture.

MR. ADELMAN: Fair enough.

- BRUCE A. BELL -

MR. BURKE: It actually starts at page 2, so the last page was taken off.

MR. ADELMAN: Yes.

MR. BURKE: It's actually a six page document that's being shown to the document marked as Plaintiff's Exhibit 4.

Q Doctor Bell, the last page of this document, if you would take a look at that?

MR. ADELMAN: It's page number 6 of 8?

MR. BURKE: Yes.

Q Do you see what's shown in that last page, the full picture on that last page?

A I see the picture, yes.

Q Do you recognize that as the manhole near the Saddle River Swim Club?

A Yes.

Q And that's the road that, the gravel road that goes down to the Saddle River, is that correct?

MR. ADELMAN: Objection to form.

A I believe that's right.

Q And in this picture it shows the remnants of an overflow at that manhole, is that correct?

A That's what it looks like to me.

Q It looks like there is a line of toilet paper

and sanitary products from the manhole continuing down the road towards the river, is that correct?

A Yes.

Q And if you take a look at the preceding page, do you see that? Do you recognize what's depicted in that picture?

A I certainly recognize the Saddle River. Which picture, by the way?

Q We are talking about the top picture.

A I see what's there, yes.

Q And that's the road that we saw in the prior picture and the manhole, which is further up the line in that picture, the top picture on the right hand side next to the fence; is that fair to say?

A I have a hard time seeing the manhole, but --

Q I don't know if you are able to see it, but if you compare the two photos, do you see the house?

A Yes.

Q And the house is closer near the manhole, is that correct, or, I don't know if it's a house, I think it's actually a snack bar for the swim club, do you see that?

MR. ADELMAN: On page 6 of 8.

Q We are comparing 6 of 8 to 5 of 8 to give him

a point of reference of where the manhole is?

A It's hard to tell from the perspective, but I believe the manhole is upstream of there.

Q And what's depicted on page 5 shows the Saddle River itself, right?

A Yes.

Q And it shows a flow coming down that road into the river, correct?

A Unless the river takes a 90 degree bend there, it looks to me like you are flowing behind that concrete structure in one direction, and it looks like a very small flow going in the other direction from the road, but there is a gully in there that makes it hard in a picture to determine direction of flows.

Q Well, do you see in that picture in the grassy area where there appears to be water flowing down through that grassy area into the river?

A Yes.

Q So, it does depict water coming from the road where the manhole is located further up flowing down into the river, correct?

MR. ADELMAN: Objection to form.

A It looks like it, yes.

Q And in particular, the close-up of the bottom

picture shows that flow from the road down into the river, correct?

A Pretty cropped off, but it's what it looks like.

Q On the page marked 3 of 8, which is the second page, the top photo that further shows that same flow of the water from the road where the manhole is located into the river, is that correct?

A Yes.

Q And is it fair to say at this time that the water quality is cloudy?

MR. ADELMAN: At the time in the photo?

MR. BURKE: In the photo, yes.

A It looks like that it's cloudy, yes.

Q Would it be fair to say that the water quality on this page 3 of 8 is murky?

MR. ADELMAN: Objection to the form.

A I really can't distinguish between murky and cloudy. They seem the same to me.

Q Okay, that's fair.

Back to page 6 of 8, which is the last page. Next to the manhole there appears to be a berm built up, is that correct?

A Looks like it, yes.

- BRUCE A. BELL -

Q And the berm would be built up to, if anything, any flow of water coming, it would direct it down to the Saddle River, is that correct?

A It would prevent it from spreading into the swim club.

Q The swim club, right. And then it would direct the flow of water or the flow of the spill down into the river, correct?

A Or at least onto the road and maybe off the other side of the road, but not in the swim club.

Q Would you agree, Doctor Bell, that that road there doesn't have, as it appears on page 6 of 8, doesn't show any kind of vegetation?

A On 6 of 8, it does not.

Q Okay. And it looks like it's gravel, a hard pack with gravel on top, is that fair to describe?

A All I can tell you is it's loose gravel. Whether you got good hard pack under it, I can't tell from the picture.

Q Is it also fair to say that in January and, well, in this instance, in March, that the ground would be typically harder, or frozen, beginning to thaw so it wouldn't be as capable of absorbing certain things?

MR. ADELMAN: Objection to form.

A I don't know. It depends on the temperatures. I have sloughed through plenty of mud around here in March.

Q In early March, okay, fair enough.

In January, and typically in this area, and you are familiar with this area, Saddle River, typically in January the ground would be frozen and be less porous for things to be absorbed, correct?

A Unless we get our typical January thaw, and then my dogs track all kind of mud into the house.

Q I'm just saying typically, or generally, the ground would be frozen in January, which would be less susceptible for absorption, correct?

A I would agree if the ground is frozen it's going to be less susceptible to absorption. I think a January thaw around here is pretty typical. It's one of those things.

Q Back to your chart, rather, back to your supplemental report which contains the chart?

MR. ADELMAN: Is this table A?

MR. BURKE: Table A, correct.

Q We have listed a January 12th, 2010 spill, right?

MR. ADELMAN: Objection to form.

A I am sorry. Say the date again?

- BRUCE A. BELL -

Q January 12th, 2010?

A Yes.

Q And there it says that the -- it's a dry weather event, that's how it's listed, right?

MR. ADELMAN: Objection to form.

A It's listed as dry.

Q And there is no rain listed there on the day before or the day after?

A Right.

MR. ADELMAN: Objection to form.

Q It also lists the resource affected as being the groundwater and the Saddle River, correct?

A Yes.

MR. ADELMAN: Objection to form.

Q And the volume was 70,000 gallons, right?

MR. ADELMAN: Yes.

A Right.

Q And you state there that based on the review of the documents that you had, that that information was correct, right?

A Yes, it was.

MR. ADELMAN: Objection to form.

Q And based on what we previously said, generally in January you would agree that the ground is

- BRUCE A. BELL -

Q Right.

A If the flow rate in the sewers was showing that it didn't see residual flows from earlier rain and it wasn't getting a lot of infiltration, then it would be more concentrated than if it were during a significant rainstorm.

Q And wouldn't you agree that a higher concentration of sewage contains higher degrees of bacteria, E.coli and other pathogens?

MR. ADELMAN: Objection to form.

A No. Fecal coliform, by definition, are not pathogens. E.coli are rarely pathogens, so --

Q Let me ask you this. Wouldn't you agree that with a less dilute spill, such as we have here, a dry event, that it would have a higher degree of fecal coliform in that spill?

A More than likely.

Q And more than likely would have a higher degree of E.coli in that spill, correct?

A Again, with the caveats that I put on it before.

Q And that would have a higher degree of floatables in it, correct?

A Likely not.

- BRUCE A. BELL -

Q What other things would it have a higher degree of in a non-dilute spill?

MR. ADELMAN: Objection to the form.

Q Or a less dilute spill?

A Nitrogen, phosphorus, oxygen demanding substances. I don't know what else.

Q Wouldn't you agree that because of the higher concentration of those nitrogen, phosphorus, E.coli, bacterial coliform, when it reaches a water source it would have a greater effect on the water source?

A Well, I don't think the nitrogen, phosphorus are going to have a greater effect on the water source at all, because unless you are eutrophic, it's not going to be a problem. And it sure as heck ain't going to grow an algae bloom in January. The oxygen demanding substances in January are very unlikely to have -- a transient loading is very unlikely to have a dissolved oxygen effect because of the water temperature and because of the relatively higher river flows, compared to where the water quality standard is set. The bacteria will be higher. And then it's a question of how much got there and how much disappeared by the time we got to where you are worried about it.

Q And where, again, as to the dry weather spills that occurred near the Saddle River pump station, you said

you weren't aware of the fact that there is a United Water well right on the other side of the river, right?

A Right.

MR. ADELMAN: Can you read back that question?

(Court Reporter reads back last question.)

Q If the flow of the river was low at the time, that would negatively affect the river quality, correct, water quality?

A If the flow of the river was low at the time it would -- and, again, where? Instantaneously where you mixed it? Yes. What is actually going to probably have an affect on water quality downstream? The lower the flow, the lower the velocity, the more the bacteria was high before it gets to some other point downstream.

Q But there will be an affect, a negative affect, and injury, shall we say, to the river at the point of where the less diluted raw sewage enters the river, correct?

MR. ADELMAN: Objection to form.

A "Injury" is a term of your art, not mine. So, I'm not going to go to that. You will get, if you have relatively lower flows, you will get relatively higher initial concentrations of bacteria. I have told you that in January I really don't think that you are going to

get -- even be able to measure a decrease in dissolved oxygen and stuff like the nutrients are not going to have no effect at all.

Q But the bacteria and the E.coli will, correct?

A Well, E.coli are bacteria, but they will be --

Q The fecal coliform and E.coli?

A -- at the point of mixing with the water, they will be higher than they would have been if the flow was fast. As you move downstream, there is a point where they will cross over and actually be lower than if the river were flowing at a higher flow rate.

Q And that's natural as a result of the dilution, correct?

A No, it's not dilution, it's die-away. D-I-E A-W-A-Y, two different words.

MR. ADELMAN: With a hyphen.

THE WITNESS: Thank you. With a hyphen.

Q In your supplemental report, do you talk about the die-away effect?

A Yes.

Q And you compared Mr. Lindsay numbers and you say he didn't take into account for the die-away effect, right?

A Yes.

- BRUCE A. BELL -

MR. ADELMAN: Please give me time to object, if necessary, before you answer the question.

Q Page 6 of your supplemental report, the top paragraph. Actually, that's different. Hold on one second. I'm sorry, is that 6.0?

A No, 7.0.

Q Section 6.0, it's right above that paragraph that starts "moreover"?

A Okay.

Q So, the end of Section 5.0.

A Okay.

Q Have you reviewed that section?

A Yes.

Q Now, I think both you and Mr. Lindsay, is it fair to say, used different gauging points to measure, is that correct?

A Yes.

Q Gauging stations?

A Yes.

Q And you are talking about the die-away effect here, and you are specifically talking about the first one is the April 26, 2009 spill?

A Yes.

Q And then it said what, had to travel 1.25

miles?

A Approximately.

Q The next one from January 12th would have traveled approximately 2.5 miles?

A Correct.

Q That's to reach Lion's Park, right?

A Yes.

Q Do you know how far it would have to travel to reach the New York/New Jersey border?

A It would be very close to Saddle River and Twins Lakes. If I remember right, it would be about a mile and a quarter.

Q Do you know where the New Jersey border is in relation to the Saddle River Swim Club?

A It's right there.

Q So, those spills that go from the Saddle River manhole next to the swim club that reached the river would affect the river in New Jersey right there, correct?

MR. ADELMAN: Objection to form.

A Very close.

Q You go on to talk about the SSO that reaches Lion's Park. Now, Lion's Park, have you walked the river, Doctor Bell?

A Not all of it, no.

- BRUCE A. BELL -

Q Do you know the distance, I think you approximated the distance from the Saddle River Swim Club to Lion's Park is a mile and a quarter, right?

A Yeah, it's actually a little over that, to measure it accurately, but it's approximately a mile and a quarter.

Q And that's in close proximity to the gauging station that you used there at Lion's Park?

A Right.

Q In using that first April 26 spill you say that, "By the time the SSO reaches Lion's Park, approximately 10% of the bacteria that originally reached the water would have already died", correct? That's what you say in your report.

A Yes.

Q So, 90% of it wouldn't have died off by the time you reached Lion's Park, correct?

A If you make my very conservative assumption, yes.

Q And closer to where the spill occurs, none of it would have died off, correct, like right at the point of entry and the river itself?

A At the point of entry, none -- no measurable die offs would have occurred - let's put it that way.

- BRUCE A. BELL -

Q Did you identify in your report your initial report, where the other plaintiffs live in this case?

A I believe I did. I believe I did.

MR. ADELMAN: If you would like to refer to the exhibit.

MR. BURKE: Yes. Actually, he doesn't have that, or does he?

Q Yes, you do. It's figure 3.1. Do you have the same thing we are looking at?

A Yes.

Q Do you see in figure 3.1, do you see the gauging station 01390250?

A Yes.

Q That's the gauging station that Mr. Lindsay used, correct?

A Yes.

Q And then your gauging station is 01390450, correct?

A Yes.

Q For ease of reference I'm just going to distinguish them as 250 and 450, okay?

A Fair enough.

Q Thank you. Do you see that in your chart you list the plaintiff's locations, you have Roy Ostrom listed

there, right?

A Yes.

Q And he's listed along the river by closer to gauging station 250, correct?

A Yes.

Q Did you examine his property to see the flow of the river near his home?

A No.

Q Do you know if the river flows by his property and abuts his property?

A No.

Q Would you agree that based on your chart that the bacterial concentrations would be higher at Roy Ostrom's property after one of those spills, than it would be when you get down to the gauging station that you used near Lion's Park?

MR. ADELMAN: Objection to the form.

A No, I would answer I don't know.

Q Well, we talked about that April 26, 2009, spill, right?

A Right.

Q And that was at the Saddle River pump station, right?

A Right.

Q And that entered into the Saddle River, right?

A Yes.

Q And that flowed down the river, and if that that flow flowed through Mr. Ostrom's, the portion of the river that flowed through his property, wouldn't you agree that the concentration of the bacteria levels would be higher than when they reached the gauging station that you used further down river?

A I would agree that the bacterial concentrations would be higher than what they actually were at the gauging station that I used, 450. I wouldn't agree they are actually higher than what I calculated, because what I calculated was based on flow velocities at 450, where there is flow velocity data and where there is more flow.

As you have described it, and as I have seen it, there is much less flow and much less flow velocity above. And Mr. Lindsay's gauge shows there is much less flow volume and there's less flow velocity.

So, I took a very conservative approach. I said it traveled from wherever the spilled occurred, to my gauge, at the velocity that it was obtained at my gauge at 450. There are tributaries that come in after it. So, the flow is higher and the velocities are higher. There is no

- BRUCE A. BELL -

Q And did you actually go to gauge 250?

A No.

Q On your chart, figure 3.1, it delineates the New York/New Jersey line, correct?

A Yes.

Q And right on that line is the Saddle River pump station?

A Just above it, yes.

Q Isn't it fair to say that the standards for New York are fecal coliform, is that a correct statement?

A Yes.

Q And the standards for New Jersey is E.coli --

A Yes.

Q -- when you are measuring water quality?

A Well, the standards are E.coli.

Q And in New York they set a numerical amount for bacterial coliform, and if it exceeds that standard, exceeds that amount, correct?

A Not quite so simple. But the water quality standards were set numerically for the geometric mean of five samples and then an individual sample, I believe.

Q And there is a standard set also, as we said, for E.coli in New Jersey?

A Yes.

- BRUCE A. BELL -

Q The Rockland County Sewer District, since it is a New York entity, would have to comply with the bacterial coliform standards, correct?

MR. ADELMAN: Objection to form.

A There is no bacterial coliform standard in New York, or E.coli standard in New Jersey for a concentration in SSO's. The water quality standards are set and you have a general don't violate the water quality standards. The water quality standards are used primarily in most states to set discharge limits on plants and to close public swimming areas.

Q And you said that there is a standard where they say don't violate the water quality standards, correct?

A I think if you go to a permit you will find that there is a general prohibition in the permit that says don't cause or contribute to the violation of the water quality standards.

Q And now we were talking about what those standards are, and there is a difference between New York and New Jersey as to how they set those standards, what they use to set those standards, right?

MR. ADELMAN: Objection to form.

A They use different bacteria. The procedure

they use to set those standards are the same.

Q Again, back to the question I have, the Rockland County Sewer District is a New York entity and they have to conform with the bacterial coliform standards as a New York entity, correct?

MR. ADELMAN: Objection.

A The disconnect here is that the permits are written for discharges. Water quality standards are derived to sustain the beneficial use of the water that society decides it's going to be. The water quality standards are used by permit writers to write permits. They are also used by Health Departments to close swimming areas. And in the case of salt water, are used to close shellfish area, bacterial standards.

The standard is generally written to apply at seven day, New York and New Jersey I believe both use it, seven day low average flow with a return period of ten years. And for things like oxygen demanding substances, at the highest temperature that's commensurate with the time of year that the seven day, ten year low flow occurs.

Q Just kind of breaking down that a little bit. When you said the standard is exceeded, that could affect closing recreational activities in the water source that's affected, or where the standard has been exceeded, correct?

- BRUCE A. BELL -

these further proceedings transpired.)

BY MR. BURKE:

Q Doctor Bell, referring again to Exhibit 1, your figure 3.1 in the map that you have attached, wouldn't you agree that the gauging station 250 that Dennis Lindsay used is closer to the Saddle River pumping station where these spills occurred, and by using that gauging station would show a higher degree of concentration of sewage from those spills?

A First of all, closer than what?

Q Closer than the gauging station that you used?

A Okay. It would show a higher concentration probably of everything except maybe the bacteria as we discussed earlier. That depends on time, not distance.

Q Doctor Bell, would you agree that all of the SSO's, the untreated discharges after the consent decree, would be considered a violation of their SPDES permit?

A Again, whether somebody considers it a violation is legal. I would say that they are not permitted by the permit, on the other hand, no one who knows anything about it expects a mere signing of a piece of paper to change anything. The consent decree calls for a series of -- or the consent order, or any consent decree, calls for a series of studies followed by approval,

followed by actions, followed by completing those actions. And until you get at least to the point of starting physical actions, nothing in a consent order or a consent decree can change anything.

Q So that the spills that would be occurring after the consent decree that reach waterbody will still be causing damage, correct?

MR. ADELMAN: Objection.

A If the spills hit the waterbody, number one. And if there was sufficient concentrations to cause a damage - whatever damage is, yes.

Q Well, what would be in your mind a sufficient concentration to cause damage to a river?

MR. ADELMAN: Objection to form.

A Well, a concentration of what?

Q Well, I think you said if there was a sufficient concentration, so forth. Let's just say a dry weather event, where there is a greater concentration of raw sewage that's not diluted, would you agree that in those instances if it reached the waterbody it would cause harm to the waterbody?

A Not as a general principle, no.

Q So, you are saying that if raw sewage reached the waterbody and it was non-diluted, it wouldn't cause

damage?

A I'm saying that the contaminants contained in sewage have different effects in the water. If you have sufficient concentration of some of them, you can cause an adverse effect in the waterbody. If I put in enough organic material to cause the dissolved oxygen to come from 9 milligrams per liter to 8.8 milligrams per liter, I haven't damaged the waterbody.

Q You have not what?

A I have not damaged the waterbody. There is no need -- the waterbody doesn't need a concentration that high to support all of its uses. If I put in enough bacteria to close a public beach, obviously I have damaged or caused harm to the waterbody and harm to the people who use it. In the Saddle River, in this stretch of the Saddle River, the nitrogen and phosphorus is still not going to cause any harm.

Q But the bacteria can?

A The bacteria can, depending on concentration and where in the river you are talking about.

Q Okay. So, Doctor Bell, are you familiar with the Rockland County Sewer Use Law?

A Not really.

Q Did you see it referenced in Mr. Lindsay's

report?

A Yes.

MR. BURKE: Please mark this.

(Dennis Lindsay initial report of April 2012 marked Plaintiff's Exhibit 5 for identification.)

Q This is Dennis Lindsay initial report, April 2012. I am going to ask you to turn to the fourth page, actually, is where it begins. The bottom of it is where it lists the Sewer Use Law?

A Yes.

Q And after reviewing his report did you then go to look to see if he correctly cited what the Sewer Use Law said?

A No, I did not.

Q And he said that the Sewer Use Law in the county as promulgated by the DEC says that, "It should be unlawful for any person to place, deposit, or permit to be deposited in any unsanitary manner on public or private property within the district, or in any area under the jurisdiction of said district, any human excrement, garbage or objectionable waste. Also, no person shall discharge domestic sewage onto the surface of the ground or discharge in a way that permits it to come to the surface of the ground."

- BRUCE A. BELL -

Wouldn't you agree that all of the SSO's, whether before the consent decree or afterwards, would be in violation of that law?

MR. ADELMAN: Objection to form.

A To start with, you said DEC promulgated it. They didn't.

Q Well, taking that out of the equation, and just the question being the law as I read it to you, wouldn't you agree that all of the SSO's, both before the consent decree and after, would be in violation of this law?

MR. ADELMAN: Objection to form.

A This really is a legal question whether the district is a person under this law. I have no idea.

Q Let's assume that they are.

A If the district were and, again, I'm not going to find violations, I am going to tell you that if the district were a person, they did things that are contrary to this law.

Q In the sanitary sewer overflows that occurred both before and after the consent decree, correct?

MR. ADELMAN: Objection to form.

A Well, dealing with the time period starting after the consent decree, so, 2006. I haven't looked at

anything before that. I am going to say that it was not in the time period.

Q But the consent decree itself listed a host of spills that occurred prior to the consent decree, right?

A Right.

Q So, as to those spills that were listed prior to the consent decree, wouldn't you agree that if they were a person, as you have qualified before, those spills that reached the surface area would be in violation of that law.

MR. ADELMAN: Objection to the form.

A Assuming that law were in place then.

Q Then, yes?

A Yes.

MR. BURKE: Mark this, please.

(Second Amended Complaint marked Plaintiff's Exhibit 6 for identification.)

Q Showing you what's been marked as Plaintiff's Exhibit 6, which is the second amended complaint in this matter, which I believe you indicated that you reviewed in preparation for your report, is that correct?

A Yes.

Q Doctor Bell, after a sanitary sewage overflow, if there is a higher concentration of sewage, wouldn't you agree that there would be foul odors?

- BRUCE A. BELL -

A Yes.

Q It doesn't mean that there won't be harm to the river, even if it doesn't rise to the level of impaired, correct, environmental harm to a river, even though it doesn't rise to the level of impaired?

MR. ADELMAN: Objection.

A It is possible to have harm to the river. If you have regular harm to the river, it's going to be impaired by that. It has to be, if you follow the rules, anyway.

Q But it is possible to have harm to the river that is not considered impaired, correct?

MR. ADELMAN: Objection to form.

A Yes.

Q Have you in your years of experience ever heard any people complain that live near sanitary sewer overflows of smell, foul odors?

A Yes.

Q So, it wouldn't be uncommon that people complain that live near sanitary sewer overflows of foul odors and smells?

MR. ADELMAN: Objection to form.

A Two different questions. I don't know how common it is. I haven't done any kind of surveys. I

certainly know people who got their basements filled with sewage who complained about the odors. I know that in Cincinnati there is an illegal, but designed, overflow that dumps, in a good storm, 50 million gallons of untreated sewage in the river. There are two houses that are 100 feet from there. They complain about odors. There is a school that's 400, 500 yards from there that they say they never smell anything.

Q It depends on when the spills are occurring?

A Well, Cincinnati at that place up until about two years ago would have corrected in a consent decree, or a work done under a consent decree. It happened virtually every time it rained.

Q Would you agree that sanitary sewer overflows that places sewage in a river, that people are aware of, that they would be less likely to use and enjoy that river?

A I think that, again, am I aware? I know people have said that. I know people who have not said that. It obviously depends on the time. I don't know that anybody is doing contact recreation in a river around here in January.

Q Right, but during times when people utilize the river, if there is a spill around that time and they are aware of it, or they smell it, they are less likely to

use it, correct?

MR. ADELMAN: Objection.

A You know, I'm not going to speak for what people do. I have seen people do all kinds of things. But, you know, you have to ask the people whether they are going to use it.

Q Okay. Did you review the complaint where the people who said that they use the river, that as a result of the spills they don't use the river?

A I know they said that, yeah.

Q And you know that people have said that in other instances when there is sanitary sewer overflows that affect the water source, that they don't use the river?

A Yes.

Q Would you agree that as a result of the sanitary sewer overflows that has negatively impacted these people as far as how they use this river?

MR. ADELMAN: Objection.

A The best I could do is say what the people said. I don't know what reality was. And that's not really in my area of expertise. I'm an engineer, not a psychologist.

Q That's fine. That's perfectly fair.

Would you agree as an engineer that if there

- BRUCE A. BELL -

Q Okay, if you had 78,000 gallons of sewage flowing through your back yard where the river come through, do you think people would complain about that?

MR. ADELMAN: Objection to form.

A Again, complain about reduction of property values? I don't know.

Q I'm going to ask you to turn to page 8 of the complaint. And in particular paragraph 20.

A Okay.

Q Do you agree with the statement contained in paragraph 20 on page 8?

MR. ADELMAN: Objection.

A Aside from its not correct typing, I don't think the Clean Water Act prohibits discharge pollutants from a point source with waters of the United States.

Q Within waters of the United States is that --

A I don't know, it's not memorized whether it's into or with or whatever, but there is a general prohibition that discharge pollutants from a point source, waters of the United States, except in compliance with an NPDES permit.

Q And these sanitary sewer overflows that we are talking about, both before the consent decree and after the consent decree, were not pursuant or in compliance with

their SPDES permit, correct?

MR. ADELMAN: Objection.

A I believe that's true.

Q So, those sanitary sewer overflows would be prohibited under the Clean Water Act, correct?

MR. ADELMAN: Objection to form.

A Those sanitary sewer overflows that reach waters of the United States, yes.

Q And, obviously, the Saddle River is a water of the United States, correct?

A I believe it is, but that's not my expertise. God knows I have seen people argue about waters I thought were waters of the United States, so --

Q In paragraph 21 it goes on where it says the Clean Water Act defines a pollutant. Are you familiar with the Clean Water Act's definition of a pollutant?

A Yes.

Q It defines in that paragraph 21 as dredged oil, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical waste, biological material. And it continues on towards the end, it says, industrial, municipal and agricultural waste discharged into the water. Is that what your understanding as to what a pollutant is under the Clean Water Act?

A Okay.

Q Yes, you have additional spills that are attached and listed from June of '06 through August 5th, 2006?

MR. ADELMAN: Objection to form.

A There are spills listed there.

Q And I think if you look at the amended complaint it says, "Incorporated herein as attached, but not completely listed", but yet it starts on August 23rd. So, is it fair to say that other spills discussed in the complaint also incorporate by reference these spills that I'm pointing out to you now?

MR. ADELMAN: Objection to the form.

A If that's what it says there, that's what it says there.

Q Doctor Bell, when were you engaged to serve as an expert for the Rockland County Sewer District in this case?

A Originally in late '73, no, I am sorry, in '07.

Q Late in '07. You said "originally". Did there come a time that you were re-engaged as an expert?

A I don't know whether you would call it a "re-engagement", but there is a long hiatus, and that would